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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/611,968
Filing Date: July 03, 2003
Appellant(s): BURGAUD ET AL.

MAILED
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GROUP 1700

Thalia V. Warnement
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed September 06, 2007 appealing from the Office action mailed March 22, 2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is incorrect. A correct statement of the status of the claims is as follows:

Claims 1-6, 9-10 and 12-36 been substituted for the finally rejected claims.

Claims 7 and 8 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows:

Claims 1-6, 9-10 and 12-36 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Hoeffkes et al. (US 2002/0059682 A1) in view of Rudolf Benshein (US 3,634,013).

Claims 7 and 8 objected to as being dependent upon a rejected base claim.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

US 2002/0059682 A1	Hoeffkes et al.	05-2002
US 3,634,013	Rudolf Benshein et al.	01-1972

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-6, 9-10 and 12-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoeffkes et al. (US 2002/0059682 A1) in view of Rudolf et al. (US 3,634,013). This action is set forth in the previous office action mailed on March 22, 2007.

Claims 1-6, 9-10 and 12-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoeffkes et al. (US 2002/0059682 A1) in view of Rudolf Benshein (US 3,634,013).

Hoeffkes et al. (US' 682 A1) teaches a hair dyeing composition comprising primary alcohol ethanol as an aldehyde precursor as claimed in claims 1, 6 and 9 (see page 11, paragraph, 0211), 0.001 to 1% of at least one enzyme of alcohol oxidase as claimed in claim 5 (see page, 1, paragraph, 0014 and page 7, paragraph, 0129), at least one heteroaromatic hydrazones (see page 2, paragraph, 0018), oxidation base of para-phenylenediamine in the amount of 0.2% as claimed in claims 13-14 (see page 2, paragraph, 0019 and page 14, paragraph, Example 10), oxidation

coupler of resorcinol in the amount of 0.07% as claimed in claims 15-16 (see paragraph, 14, Example 10), direct dyes (substantive dyes) as claimed in claim 17 (see page 7, paragraph, 0127) and other oxidizing agent as claimed in claim 18 (see page 7, paragraph, 0129). Hoeffkes et al. (US' 682 A1) also teaches a method for dyeing hair comprising applying to the hair the dyeing composition as described above and after mixing the dyeing composition with the oxidizing composition (enzyme composition), the mixture is applied to the hair and left for 30 minutes and then rinsed out as claimed in claims 19-35 (see

The disclosure of Hoeffkes et al. (US' 682 A1) as described above, does not teach the claimed formula of the heteroaromatic hydrazones.

However, Hoeffkes et al. (US' 682 A1) clearly suggests the use of heterocyclic hydrazones in a hair dyeing composition (see page 2, paragraph, 0018).

Rudolf Benshein (US' 013) teaches in analogous art of hair dyeing formulation, a composition comprising a heterocyclic hydrazones compound having a formula similar to the claimed formula as claimed in claim 1 (see col. 2, the upper formulae) and wherein the amount of the heterocyclic hydrazones is 0.5 to 7% which within the claimed range as claimed in claim 12 (see col. 7, line 14).

Therefore, in view of teaching of the secondary reference, one having ordinary skill in the art at the time the invention was made would be motivated to modify the dyeing composition of Hoeffkes et al. (US' 682 A1) by incorporating the heterocyclic hydrazones compound as taught by Rudolf Benshein (US' 013) to make such a composition. Such a modification would be obvious to one having ordinary skill in the art because the primary reference of Hoeffkes et al.

(US' 682 A1) suggests the use of heterocyclic hydrazones in the hair dyeing composition (see page 2, paragraph, 0018). Rudolf Benshein (US' 013) as a secondary reference clearly teaches the claimed formula of heterocyclic hydrazones compound and thus, a person of the ordinary skill in the art would be motivated to incorporate the claimed hydrazones as taught by Rudolf Benshein (US' 013) in the dyeing composition of Hoeffkes et al. (US' 682 A1) with a reasonable expectation of success for improving the dyeing properties of the composition and would expect such a composition to have similar properties to those claimed, absent unexpected result.

With respect to claims 2-4, it would have been obvious to one having ordinary skill in the art at the time the invention was made to formulate a dyeing composition comprising alcohol oxidase enzymes derived from any plant species to arrive at the claimed invention because Hoeffkes et al. (US' 682 A1) teaches similar hair dyeing composition comprising alcohol oxidase enzymes obtained from *Stachybotrys* species (see page 1, paragraph, 0012), and, thus, a person of the ordinary skill in the art would expect that alcohol oxidases as aldehyde generators would have similar properties in the dyeing compositions no matter from which source these enzymes are derived, and, would expect such a composition to have similar properties to those claimed, in the absence of contrary.

With respect to claim 36, it would have been obvious to one having ordinary skill in the art at the time the invention was made to separate the dyeing ingredients by utilizing a multi-compartment device because the reference clearly teaches that the enzyme preparation is mixed to the dyeing precursors (dyeing composition) directly prior to dyeing hair (see page 11, paragraph, 0235), which implies that the enzyme composition is kept separately from the dyeing composition, and, thus, a person of the ordinary skill in the art would utilize such a device in

order to separate the dyeing composition from the enzymatic composition (oxidizing composition), and would expect such a composition to have similar properties to those claimed, absent unexpected results.

Allowable Subject Matter

Claims 7 and 8 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art of record do not teach or disclose a hair dyeing formulation comprising aldehyde precursors chosen the claimed amino acid species as claimed.

(10) Response to Argument

The examiner has reviewed Appellant's arguments and respectfully disagrees with counsel's allegations. Specifically, appellants argue that the examiner has not established a prima facie case of obviousness.

The examiner's position is such that the arguments are not found persuasive because of the following reasons.

In establishing a prima facie case of obviousness, three criteria must be met. See *in re Vaeck*, 947 F2d. 488, 20 USPQ 2d 1438 (Fed. Cir. 1991). First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. (see MPEP 2143).

In this case the three criteria have been met, because all references are in the same analogs art of keratin fibers treating formulation.

Hoeffkes et al. (US' 682 A1) teaches and discloses an enzymatic hair dyeing composition comprising primary alcohols such as ethanol (aldehyde precursor) as claimed in claims 1, 6 and 9 (see page 11, paragraph, 0211), alcohol oxidase (see page 7, paragraph, 0129) as an example of the enzyme that generates an aldehyde from aldehyde precursor as recited in claim 1. Hoeffkes et al. (US' 682 A1) also teaches and suggests the use of genus heterocyclic hydrazones compounds in the dyeing composition as claimed in claim 1 (see page 2, paragraph, 0018).

Rudolf et al. (US' 013) in analogous art of hair dyeing formulation, clearly teaches and suggests the use of heterocyclic hydrazone species having a formula similar to the claimed formula (see col. 2, the upper two formulae), when in the claimed formula, "Ar" is chosen from heterocycles with 5 or 6 links comprising at least one nitrogen atom. It is further taught by Rudolf et al. that a dyeing composition comprising heterocyclic hydrazone compounds forms a homogeneous compounds and the dyeing composition can be easily removed from the hair (see col.1, lines 24-37).

Therefore, there is a sufficient motivation to one having ordinary skill in the art to be motivated to combine the teachings of the references because both references teach hair dyeing compositions comprising heterocyclic hydrazone compounds, and, thus, the skilled person in the art would further be motivated to select any of the species of the genus hydrazone that taught by the secondary reference of Rudolf et al. includes those of the claims and incorporate these species of heterocyclic hydrazone compounds in the dyeing composition of Hoeffkes et al. to arrive at the claimed invention because an ordinary artisan would have the reasonable expectation that any of the species of the genus would have similar properties and, thus, the same use as the genus as a whole.

Further, Rudolf et al. teaches a homogenous composition that easily removed from hair after a definite reaction period due to the presence of heterocyclic hydrazone compounds in the dyeing composition (see page 1, lines 24-38). Therefore, there is a reasonable expectation of success for improving the dyeing properties of the composition, and, a person of the ordinary skill in the art would expect such a composition to have similar properties to those claimed, in the absent of contrary.

Furthermore, the appellant's argue that ethanol is described as a solvent or solubility promoter not as an aldehyde precursor and it mentioned as an optional additive or auxiliary component which is listed among myriad different auxiliary components. Appellant's also argue that Hoeffkes utilizes phenol oxidizing enzymes to produce oxygen which is subsequently oxidizes the dye precursor by oxidative condensation, which results in a dye agent while the enzyme in claimed invention reacts with heterocyclic aromatic hydrazone to form a colored product.

The examiner respectfully disagrees with the above arguments because the examiner has a reason to believe that the functional language such as "enzyme able to generate an aldehyde from the at least one aldehyde precursor" and "heteroaromatic hydrazone able to generate a colored substance by reaction with an aldehyde" asserted to be critical for establishing novelty in claimed subject matter may be in fact be an inherent characteristic of the prior art, the burden of proof is shifted to Appellants to prove that the subject matter (alcohols oxidase, ethanol and heterocyclic hydrazone compounds) shown in the prior art do not possess the characteristic relied upon. In re Fitzgerald et al. 205 USPQ 594.

Further, the examiner also would like to point out that the claimed invention is directed to a dyeing composition that comprises dyeing ingredients taught by the combined references as mentioned above, and not directed to specific chemical reactions that required specific species of elements to generate or produce specific products.

Furthermore, appellants have not shown on record the criticality to the claimed composition over the dyeing composition of the closest prior art of record.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

Accordingly, the Office maintains that the Examiner has met the burden to establish the prima facie showing of obviousness. Viewed as a whole, the invention as claimed would have been obvious to one of ordinary skill in the art at the time of the invention.

Finally, the Examiner request that this Board when viewing the evidence as a whole, and lacking any secondary indicia of non obviousness, affirm the decision of the Examiner in whole.


For the above reasons, it is believed that the rejections should be sustained.


Eisa Elhilo, Primary Examiner (A.U. 1796)

Respectfully submitted

Conferees:


Pyon Harold (SPE, A.U. 1796)


Romulo Delmendo (Appeals Specialist)